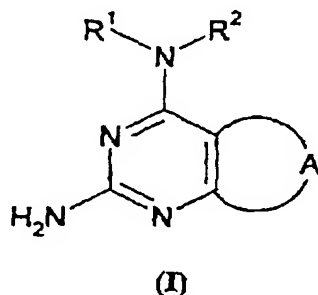


IN THE CLAIMS

Please amend claims 7, as follows:

1. (Previously Presented) A compound of formula I

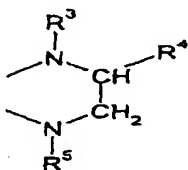


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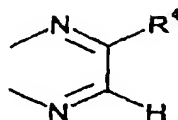
in which

A is

B1



or



R¹ is hydrogen, C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₂-C₂₀-alkynyl, cycloalkyl with three to eight ring carbon atoms, cycloalkenyl with three to eight ring carbon atoms, cycloalkylalkyl with five to six ring carbon atoms, aryl, alkylaryl or arylalkyl, wherein R¹ is unsubstituted or substituted with at least one substituent chosen from R⁶,

R² is C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₂-C₂₀-alkynyl, cycloalkyl with three to eight ring carbon atoms, cycloalkenyl with three to eight ring carbon atoms, cycloalkylalkyl with five to six ring carbon atoms, aryl, alkylaryl or arylalkyl, wherein R² is unsubstituted or substituted with at least one substituent chosen from R⁶,

or R¹ and R², together with the nitrogen atom bearing them, form a 3-8-membered ring, wherein said 3-8-membered ring optionally comprises 0, 1 or 2 further heteroatoms chosen from N, O, and S, and wherein said 3-8-membered ring is unsubstituted or substituted by at least one radical,

R³ is hydrogen, -CO-alkyl, -CO-alkylaryl or -CO-aryl,

R⁴ is C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₂-C₂₀-alkynyl, cycloalkyl with three to eight ring carbon atoms, cycloalkenyl with three to eight ring carbon atoms, cycloalkylalkyl

with five to six ring carbon atoms, aryl, alkylaryl, arylalkyl, -CO-O-alkyl, -CO-O-aryl, -CO-alkyl -CO-aryl, wherein R⁴ is unsubstituted or substituted with at least one substituent chosen from R⁷,

R⁵ is hydrogen, -CO-alkyl, -CO-alkylaryl or -CO-aryl,

R⁶ is -F, -OH, -O-(C₁-C₁₀)-alkyl, -O-phenyl, -O-CO-(C₁-C₁₀)-alkyl, -O-CO-aryl, -NR⁸R⁹, oxo, phenyl, -CO-(C₁-C₅)-alkyl, -CF₃, -CN, -CONR⁸R⁹, -COOH, -CO-O-(C₁-C₅)-alkyl, -CO-O-aryl, -S(O)_n-(C₁-C₅)-alkyl, or -SO₂-NR⁸R⁹,

R⁷ is -F, -OH, -O-(C₁-C₁₀)-alkyl, -O-phenyl, -O-CO-(C₁-C₁₀)-alkyl, -O-CO-aryl, -NR⁸R⁹, oxo, phenyl, -CO-(C₁-C₅)-alkyl, -CF₃, -CN, -CONR⁸R⁹, -COOH, -CO-O-(C₁-C₅)-alkyl, -CO-O-aryl, -S(O)_n-(C₁-C₅)-alkyl, or -SO₂-NR⁸R⁹,

R⁸ is hydrogen or C₁-C₂₀-alkyl, and

R⁹ is hydrogen, C₁-C₂₀-alkyl or aryl,

or a physiologically acceptable salt, hydrate, or ester thereof, in any stereoisomeric or tautomeric form, or a mixture of any such compounds in any ratio.

2. (Previously Presented) The compound as claimed in claim 1, in which

R¹ is hydrogen, (C₁-C₁₀)-alkyl, (C₃-C₈)-cycloalkyl, cycloalkylalkyl, aryl, (C₁-C₃)-alkylaryl or arylalkyl, wherein R¹ is unsubstituted or the alkyl radicals are substituted with at least one substituent chosen from R⁶

R² is (C₁-C₁₀)-alkyl, (C₃-C₈)-cycloalkyl, cycloalkylalkyl, aryl or (C₁-C₃)-alkylaryl, wherein R² is unsubstituted or the alkyl radicals are substituted with at least one substituent chosen from R⁶

or R¹ and R², together with the nitrogen atom bearing them, form a 3-8-membered ring, wherein said 3-8-membered ring optionally comprises 0, 1 or 2 further heteroatoms chosen from N, O, and S and wherein said 3-8-membered ring is unsubstituted or substituted by at least one radical,

R³ is hydrogen, -CO-(C₁-C₇)-alkyl, -CO-(C₁-C₃)-alkylaryl or -CO-aryl,

R⁴ is (C₁-C₁₀)-alkyl, aryl, (C₁-C₃)-alkylaryl, -CO-O-(C₁-C₅)-alkyl, -CO-O-aryl, -CO-(C₁-C₅)-alkyl or -CO-aryl, wherein R⁴ is unsubstituted or the alkyl radicals are substituted with at least one substituent chosen from R⁷

R⁵ is hydrogen, -CO-(C₁-C₇)-alkyl, -CO-(C₁-C₃)-alkylaryl or -CO-aryl,

R⁶ is -F, -OH, -O-(C₁-C₁₀)-alkyl, -O-phenyl, -O-CO-(C₁-C₁₀)-alkyl, -O-CO-aryl, -NR⁸R⁹, oxo, phenyl, -CO-(C₁-C₅)-alkyl, -CF₃, -CN, -CONR⁸R⁹, -COOH, -CO-O-(C₁-C₅)-alkyl, -CO-O-aryl, -S(O)_n-(C₁-C₅)-alkyl, or -SO₂-NR⁸R⁹,

R^7 is -F, -OH, -O-(C₁-C₁₀)-alkyl, -O-phenyl, -O-CO-(C₁-C₁₀)-alkyl, -O-CO-aryl, -NR⁸R⁹, oxo, phenyl, -CO-(C₁-C₅)-alkyl, -CF₃, -CN, -CONR⁸R⁹, -COOH, -CO-O-(C₁-C₅)-alkyl, -CO-O-aryl, -S(O)_n-(C₁-C₅)-alkyl, or -SO₂-NR⁸R⁹,

R^8 is hydrogen or (C₁-C₅)-alkyl, and

R^9 is hydrogen, (C₁-C₅)-alkyl or phenyl,

wherein each aryl group is chosen from phenyl, naphthyl and heteroaryl groups,

wherein said phenyl, naphthyl and heteroaryl groups are unsubstituted groups or substituted groups which are substituted by at least one substituent chosen from halogen, (C₁-C₅)-alkyl or phenyl, -OH, -O-(C₁-C₅)-alkyl, (C₁-C₂)-alkylenedioxy, -N⁸R⁹, -NO₂, -CO-(C₁-C₅)-alkyl, -CF₃, -CN, -CONR⁸R⁹, -COOH, -CO-O-(C₁-C₅)-alkyl, -S(O)_n-(C₁-C₅)-alkyl, and -SO₂-NR⁸R⁹,

wherein said heteroaryl groups are 5- to 7-membered unsaturated heterocycles comprising at least one heteroatom chosen from O, N, and S, and

wherein n is 0, 1 or 2,

or a physiologically acceptable salt, hydrate, or ester thereof, in any stereoisomeric or tautomeric form, or a mixture of any such compounds in any ratio.

3. (Previously Presented) The compound as claimed in claim 1, in which

R^1 is hydrogen, unsubstituted (C₂-C₄)-alkyl, substituted (C₂-C₄)-alkyl which is substituted by at least one R⁶, or (C₁-C₂)-alkylaryl,

R^2 is unsubstituted (C₂-C₄)-alkyl, substituted (C₂-C₄)-alkyl which is substituted by at least one R⁶, cyclohexylmethyl or (C₁-C₂)-alkylaryl,

or R^1 and R^2 , together with the nitrogen atom bearing them, form a 5-7-membered ring wherein said 5-7-membered ring optionally comprises an additional heteroatom chosen from N, O, and S,

R^3 is hydrogen, -CO-(C₁-C₃)-alkyl or -CO-aryl,

R^4 is aryl, (C₁-C₅)-alkyl or -CO-O-aryl, wherein R^4 is unsubstituted or substituted with at least one substituent chosen from R⁷,

R^5 is hydrogen,

R^6 is -OH, -O-(C₁-C₃)-alkyl, -NR⁸R⁹ or -COOH, and

R^7 is -OH, (C₁-C₁₀)-alkyloxy, phenoxy or oxo,

wherein each aryl group is chosen from phenyl, thienyl, furyl and pyridyl,

wherein said phenyl, thienyl, furyl and pyridyl groups are unsubstituted groups or substituted groups which are substituted by at least one substituent chosen from (C₁-C₃)-alkyl, halogen, (C₁-C₃)-alkyloxy and (C₁-C₂)-alkylenedioxy,

or a physiologically acceptable salt, hydrate, or ester thereof, in any stereoisomeric or tautomeric form, or a mixture of any such compounds in any ratio.

4. (Previously Presented) The compound as claimed in claim 1, in which

R¹ is arylmethyl,

R² is arylmethyl or cyclohexylmethyl,

or R¹ and R², together with the nitrogen atom bearing them, form a pyrrolidine, piperidine, morpholine, dimethylmorpholine, thiomorpholine, or N-(C₁-C₂)-alkylpiperazine ring,

R³ is hydrogen,

R⁴ is alkyl or 1,2-dihydroxypropyl,

R⁵ is hydrogen,

R⁶ is -OH, -O-(C₁-C₃)-alkyl, -NR⁸R⁹ or -COOH, and

R⁷ is -OH, decyloxy or phenoxy,

wherein each aryl group is chosen from unsubstituted phenyl or substituted phenyl, which is substituted by at least one substituent chosen from (C₁-C₃)-alkyl, halogen and (C₁-C₃)-alkyloxy and (C₁-C₂)-alkylenedioxy,

or a physiologically acceptable salt, hydrate, or ester thereof, in any stereoisomeric or tautomeric form, or a mixture of any such compounds in any ratio.

5. (Previously Presented) The compound as claimed in claim 1, which is a tetrahydropteridine wherein R⁴ is aryl, (C₁-C₅)-alkyl or -CO-O-aryl, and wherein said R⁴ is unsubstituted or substituted with at least one substituent chosen from R⁷.

6. (Previously Presented) The compound as claimed in claim 1, which is a pteridine wherein

R¹ and R² are each, independently alkyl or aryl, or

R¹ is hydrogen and R² is cycloalkyl or cycloalkylalkyl, and

wherein R⁴ is aryl, (C₁-C₅)-alkyl or -CO-O-aryl, wherein said R⁴ is unsubstituted or substituted with at least one substituent chosen from R⁷.

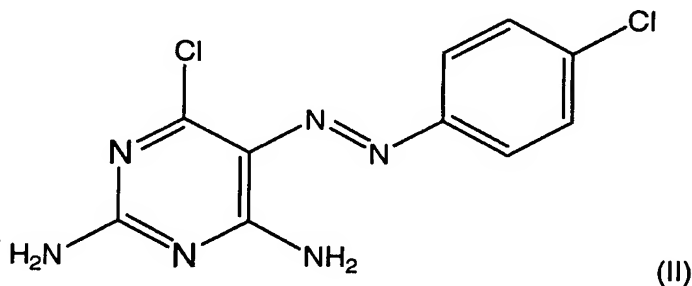
7. (Presently Amended) A pharmaceutical comprising at least one of the compounds as claimed in claim 1 and at least one additional ingredient chosen from conventional excipients additives ~~and further active ingredients~~.

8. (Previously Presented) A method of treating or preventing strokes, pathological falls in blood pressure, ulcerative colitis, transplant rejection reactions, nephritis, reperfusion damage, infarct damage, cardiomyopathy, Alzheimer's disease, epilepsy, migraine and neuritis of varying etiology comprising administration of at least one pharmaceutical of claim 7 to a patient in need thereof .

9. (Previously Presented) A method of inhibiting NO synthase comprising administration of at least one pharmaceutical of claim 7 to a patient in need thereof.

10. (Cancelled).

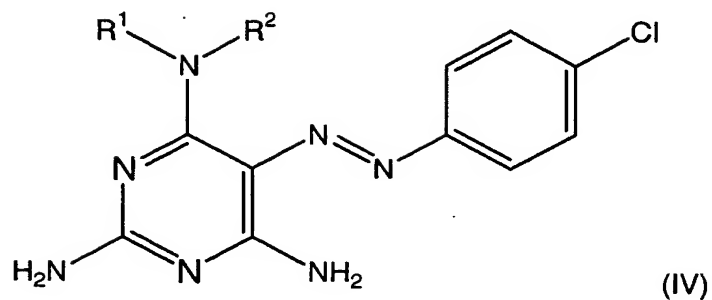
11. (Previously Presented) A process for preparing the compound as claimed in claim 1 comprising reacting a compound of formula II



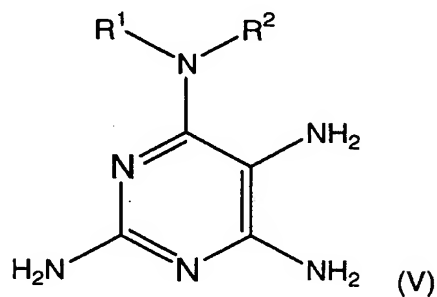
with a compound of formula III



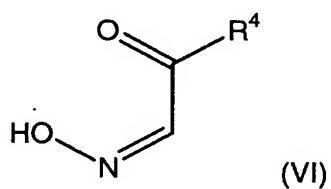
which results in a compound of formula IV



wherein the compound of formula IV is converted to a compound of formula V by catalytic hydrogenation

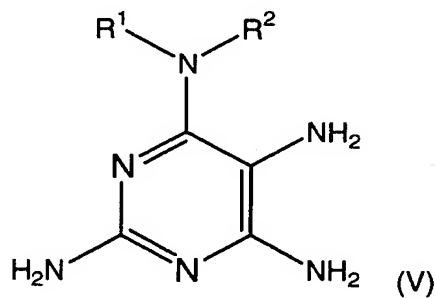


and wherein a compound of formula V is reacted with a compound of the formula VI



to give a compound of formula I.

12. (Previously Presented) A compound of the formula V



in which

R¹ is hydrogen, C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₂-C₂₀-alkynyl, cycloalkyl with three to eight ring carbon atoms, cycloalkenyl with three to eight ring carbon atoms, cycloalkylalkyl with five to six ring carbon atoms, aryl, alkylaryl or arylalkyl, wherein R¹ is unsubstituted or substituted with at least one substituent chosen from R⁶,

R² is C₁-C₂₀-alkyl, C₂-C₂₀-alkenyl, C₂-C₂₀-alkynyl, cycloalkyl with three to eight ring carbon atoms, cycloalkenyl with three to eight ring carbon atoms, cycloalkylalkyl with five to six ring carbon atoms, aryl, alkylaryl or arylalkyl, wherein R² is unsubstituted or substituted with at least one substituent chosen from R⁶,

or R¹ and R², together with the nitrogen atom bearing them, form a 3-8-membered ring, wherein said 3-8 membered ring optionally comprises 0, 1 or 2 further heteroatoms chosen from N, O, and S and wherein said 3-8-membered ring is unsubstituted or substituted by at least one substituent chosen from R⁶, and

R⁶ is -F, -OH, -O-(C₁-C₁₀)-alkyl, -O-phenyl, -O-CO-(C₁-C₁₀)-alkyl, -O-CO-aryl, -NR⁸R⁹, oxo, phenyl, -CO-(C₁-C₅)-alkyl, -CF₃, -CN, -CONR⁸R⁹, -COOH, -CO-O-(C₁-C₅)-alkyl, -CO-O-aryl, -S(O)_n-(C₁-C₅)-alkyl, or -SO₂-NR⁸R⁹

R⁸ is hydrogen or C₁-C₂₀-alkyl, and

R⁹ is hydrogen, C₁-C₂₀-alkyl or aryl,

or a physiologically acceptable salt, hydrate, or ester thereof, in any stereoisomeric or tautomeric form, or a mixture of any such compounds in any ratio.

13. (Previously Presented) The process for preparing the compound as claimed in claim 12, further comprising converting the compound of formula I by derivatization into a physiologically acceptable salt, hydrate, ester or adduct of the compound of formula I or into another compound of formula I.

14. (Previously Presented) The process of claim 13, wherein said derivatization is acylation.